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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,619	02/12/2002	Masaharu Tamatsu	24563	8076

7590

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EXAMINER

BONZO, BRYCE P

ART UNIT

PAPER NUMBER

2114

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/980,619

Applicant(s)

TAMATSU, MASA HARU

Examiner

Bryce P Bonzo

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,9,10,24-27,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,9,10,24-27,30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **NON-FINAL OFFICIAL ACTION**

### ***Status of the Claims***

Claims 4, 10 247-27, 30 and 31 are rejected under 35 USC §112.

Claims 1, 2, 5, 6 and 9 are rejected under 35 USC §103.

### ***Rejections under 35 USC §112, second paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 10 24-27, 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 10 are rejected as being unclear. Claim 4 uses the term only, while claim 10 recites solely. These claims proceed to claim additional matter in the secondary system, after explicitly claiming via only/solely that no other devices are present in the secondary system. This self-contradiction within the claims prevents the Examiner from considering these claims against the prior art.

Claims 24-27, 30 and 31 recite: the said synchronous tightly-coupled sequencing system or the said asynchronous loosely-coupled sequencing system. There is not a previous cited sequencing system and as such the what the limitation is attempting to modify is unclear. Furthermore, if antecedent basis had been made, the limitation remains an incomplete thought prevent examination against the prior art.

***Rejections under 35 USC §103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamatsu (EP 923 030 A1) in view of Yanai (United States Patent No. 5,742,792).

As per claim 1, Tamatsu discloses:

A data backup and recovery system for computers characterized by provision of:  
blocks storing sequentially records containing a single unique key and zero or one or more non-unique keys (columns 1 and 2, ¶0004);

a primary system that controls the location of these blocks by means of a location table pairing the blocks with physical addresses in random access memory and manages a database or databases stored in random access memory (columns 1 and 2, ¶0004).

Tamatsu does not explicitly disclose:

a secondary system or systems that is provided with backup blocks corresponding to the blocks of the said primary system in which the source data is

stored, controls the location of these blocks by means of a location table pairing the blocks with physical addresses in random access memory, and manages a database or databases stored in random access.

Yanai discloses the use of a near identical back and restoration systems in large databases (Figure 1). Yanai discloses the benefits of this type of backup and restoration system (namely 100% data integrity through disasters) at column 5, line 65 through column 6, line 7 and column 8, line 37 through column 8, line 48. Tamatsu disclose the possibility and need for back/restore functionality (column 9, ¶0033 "when restoring"). Thus it would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the reliable fault tolerant secondary site of Yanai into the RAM database of Tamatsu and thereby creating a fault tolerant system capable of handling valuable data without risk of loss.

As per claim 2, Yanai discloses:

provision of an said primary system that uses the main memory of the primary processing device that performs application processing as the said random access memory and is provided with a database control mechanism that modifies the content of a database or databases in the said random access memory and a primary backup and recovery control mechanism that transmits data describing those modifications when the said database control mechanism has modified the said database or databases (column 9, line 58 through column 10, line 27 disclose how the data is moved and verified in a primary system with respect to the secondary system).; and

provision of an said secondary system or systems, each of which uses the main memory of the secondary processing device as random access memory and is provided with a secondary backup and recovery control mechanism that modifies the backup database in the said random access memory with the data transmitted from the said primary backup and recovery control mechanism (column 9, line 58 through column 10, line 27 disclose how the data is moved and verified in a secondary system with respect to the primary system).

As per claim 5, Tamatsu discloses:

characterized by: the said primary system transmitting transaction initiation information when transaction processing is initiated and transmitting to the said secondary system updated data and information specifying the blocks where update content and data are stored (column 9, lines 58 through column 10, line 27);

the said secondary system or systems updating the relevant data each time it receives information describing updated data on the basis of the information describing the updated data of the relevant transaction (column 9, lines 58 through column 10, lines 27); and

the said primary system provided with a synchronous tightly-coupled sequencing system arranged to transmit update completion information to the said secondary system or systems when a transaction data update is completed (column 10, lines 2-7: referring to the portions concerning asynchronous mode).

As per claim 6, Tamatsu discloses:

the said primary system transmitting to the secondary system or systems the content of updated data and information specifying the blocks where update content and data are stored (column 10, lines 2-7); and

the said secondary system or systems provided with an asynchronous loosely-coupled sequencing system arranged to receive transaction initiation information from the said primary system and then receive log data during the transaction and update the relevant data, and to not transmit backup completion information to the said primary system after receiving transaction completion information from the primary system until that backup update processing has completed (column 16, lines 44-49).

As per claim 9, Tamatsu discloses:

the said primary processing device provided with a communicating means that performs communication of backup data, a database control mechanism that modifies the content of the said database or databases (column 8, lines 15-36 and column 15, lines 36-43 and column 16, lines 30-51), and

a primary backup and recovery control mechanism that transmits via the said communicating means data describing modifications when the said database control mechanism has modified the content of the said database or databases; and the said secondary processing device provided with a communicating means that performs communication of backup data and a secondary backup and recovery control mechanism that modifies the said backup database or databases with the data


transmitted via the said communicating means from the said primary backup and recovery control mechanism (column 10, lines 28 through column 10, lines 57).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P Bonzo whose telephone number is (571)272-3655. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Bryce P Bonzo  
Examiner  
Art Unit 2114

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